

Amendments to the Specification:

Please replace the abstract on page 19 with the following amended abstract:

METHOD FOR COATING A METAL SURGACE WITH AN ULTRA-FINE LAYER

A The present invention relates to a method for continuously coating a substrate in motion such as a metal strip made of steel, the coating formed being an ultra-fine film of a thickness between 10 and 100 nm, deposited on the substrate: from a solution containing nanoparticles of oxides, in conditions of controlled pH, said substrate being at a temperature higher than 120°C, the total duration of the deposition being less than 5 seconds and preferably less than 1 second, characterised in that at least one chemical additive, called a "refiner", is incorporated into said solution, said refiner having, mutatis mutandis, the effect of restricting the formation of said coating.

(Figure 1)

Legend of the figures

Fig.2a: Treating solution
Overhead liquid, precipitation zone
Growing sphere of vapour
Metal

Fig.2b: Overheated solution, precipitation zone
Metal

Fig. 3: Useful zone with refiners
Useful zone without refiners
Thickness (nm)
Temperature of the strip (°C)
Without refiners 
With refiners 